

# The Best Leads Against 3NT (Part I)

by David Bird and Taf Anthias

The authors were a formidable partnership in the seventies before Taf Anthias went to work in the USA (he was a vice President of Cisco Systems). They are working on a project to evaluate opening leads. Taf is an expert programmer and they are using some programs that he has written to automate the process. Their conclusions against no trump contracts will be published in a Master Point Press book towards the end of the year.

Recent advances in bridge software allow the best opening leads to be investigated. For a given West hand, several thousand deals can be generated that match the chosen auction. These deals are then played at double-dummy, against the 13 possible opening leads, to see which lead works best. Our investigations suggest that the double-dummy advantages to both declarer and the defenders tend to cancel each other out, giving a sound basis for evaluating the leads.

The auction 1NT - 3NT, which you should assume throughout this article, gives you valuable information about the responder's hand. He does not hold a 5-card major or he would have made a transfer bid on the way to 3NT. He is also unlikely to hold a 4-card major, since he did not use Stayman.

What about the opener's hand? It is standard practice to open a strong 1NT on 5-3-3-2 hands with a 5-card major, otherwise you can run into rebid problems. The opener will hold a 5-card major roughly 10% of the time. Nevertheless declarer and the dummy, between them, are likely to hold fewer cards in the majors than in the minors. There are the figures:

North (the dummy) holds an average of 2.44 cards in each major

South (declarer) holds an average of 3.38 cards in each major

Between them, they hold an average of 5.82 cards in each major, while the defenders hold 7.18. The flipside of this is that the defenders hold an average of 5.82 in each minor against North/South's 7.18. This has a very important implication: it is generally better to lead a major suit than a minor suit.

(Note that when the opponents are playing a 4-card major system, such as Acol, the bias in favour of major-suit leads is even stronger.)

## Should I lead a 4-card minor or a shorter major?

### Hand 1

What would you lead from:

♠ J 8 6 ♥ 9 5 ♦ K Q 7 2 ♣ K J 7 2 ?

**First thoughts** The guideline 'fourth-best from your longest and strongest' suggests a minor-suit lead. Leading from an honour combination often costs a trick, however, and the compensating rewards are not that high when the suit contains only four cards. Let's see the result of the 10,000-deal simulation for this West hand:

	Beats contract (IMPs)	Avg. Tricks (MPs)
♠6	21.3%	3.43
♥9	20.6%	3.41
♦K	13.2%	3.16
♦2	14.1%	3.16
♣2	15.7%	3.25

The major-suit leads are well ahead, both at IMPs and at matchpoints. So that we can judge the bias in favour of major-suit leads, we will now swap the majors and the minors. What would you lead here:

♠ K Q 7 2 ♥ K J 7 2 ♦ J 8 6 ♣ 9 5 ?

	Beats contract (IMPs)	Avg. tricks (MPs)
♠K	16.8%	3.19
♠2	12.7%	2.83
♥2	12.0%	2.85
♦6	11.9%	2.90
♣9	12.3%	2.92

A lead from the KQ72 combination is now easily best, provided you lead the king rather than the 2. An 8% deficit has been changed into a 5% advantage — a swing of 13% due to the switching of the major and minor suits!

The table contains some other points of interest. It is better to lead the ♠K rather than the ♠2. However, when the combination was in diamonds (a minor suit) it was marginally better to lead the 2. How can that be? One of the main benefits of leading the king is that you may be able to drop a doubleton jack from declarer or the dummy. This is more likely to happen in a major because the declaring side holds fewer major-suit cards than minor-suit cards.

Another important point to note is that leads from a 4-card suit headed by one or two honours are not particularly effective. You can see from the second table how closely the passive short-suit leads compete, despite being in the minor suits.

### Hand 2

What would you lead from:

♠ A 8 ♥ K Q 8 2 ♦ K J 5 3 ♣ 8 5 3 ?

**First thoughts** This time one of the 4-card suits is in a major, the other in a minor. What effect will the major-suit bias have?

	Beats contract (IMPs)	Avg. Tricks (MPs)
♠A	16.8%	3.38
♥K	26.0%	3.80
♥2	19.7%	3.42
♦3	12.6%	3.25
♣8/5/3	18.3%	3.47

The ♠K lead towers over the table and a fourth-best diamond is worst of all. This is another clear indication that major-suit leads should be favoured.

Opposite this particular West hand, East will hold an average of 3.4 hearts and only 2.5 diamonds — almost a full card fewer in the minor suit. East will hold an average of only 2.33 high-card points, too, so the prospects of finding him with the ♦A or ♦Q are not good.

**Should I lead a 4-card major or a stronger 4-card minor?**

**Hand 3**

What would you lead from:

♠ Q 9 6 5 ♡ 10 4 ♦ K 8 2 ♣ Q J 10 2 ?

**First thoughts** Is the ‘major v minor’ situation enough to close the gap between the sequence in clubs and the queen-high spades? Will the major-suit doubleton fare well again? Here are the numbers:

	Beats contract (IMPs)	Avg. Tricks (MPs)
♠5	23.1%	3.32
♡10	25.0%	3.31
♦2	19.3%	3.15
♣Q	23.2%	3.41

It’s a close race! The club sequence lead is a fraction ahead of the spade lead at matchpoints. The nondescript heart doubleton shows well at IMPs, confirming earlier results.

**Should I prefer a short major to a 5-card or 6-card minor?**

**Hand 4**

What would you lead from:

♠ Q 6 ♡ K 5 ♦ 10 8 7 3 ♣ J 10 4 3 2 ?

**First thoughts** Spurred on by the results from the previous hand, we will see how doubleton honour leads fare in the major suits. Not the type of lead that you see very often, but perhaps they work well.

	Beats contract (IMPs)	Avg. Tricks (MPs)
♠Q	15.2%	2.92
♡K	15.7%	2.76
♦3	11.0%	2.88
♣3	11.7%	2.85

Indeed they do! The major-suit doubletons share the prize money at IMPs. When you are playing matchpoints, the ♠Q lead is as good as anything.

**Hand 5**

What would you lead from:

♠ K 10 5 ♡ A 5 ♦ 10 8 6 5 3 2 ♣ 8 4 ?

**First thoughts** This time we set our short major-suit holdings against a 6-card minor suit, albeit a very weak one. Partner is unlikely to have enough help in diamonds to establish that suit. Indeed, he is quite likely to have a singleton diamond.

	Beats contract (IMPs)	Avg. Tricks (MPs)
♠5	18.1%	3.35
♡A	28.7%	3.58
♦4	19.6%	3.44
♣8	15.4%	3.28

The ♡A is easily best at IMPs and very worthwhile at matchpoints. Let’s see a typical deal from the simulation where a lead of the ♡A will beat 3NT:

♠ K 10 5		♠ 9 6 4 3									
♡ A 2		♡ J 10 9 7 6									
♦ 10 7 6 5 3 2		♦ A 8									
♣ 8 4		♣ A 6									
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	♠ A 8 7										
	♡ K Q 8 5										
	♦ K Q 9										
	♣ Q J 9										

Ace and another heart removes one of declarer’s stoppers in the suit. He sets up the club suit and your partner clears the hearts, declarer shaking his head as you discard! Declarer has eight tricks and cannot find a ninth before East enjoys the established cards in hearts for one down.

As you see, a diamond lead is too slow. East wins with the ♦A and declarer is safe whether East returns the ♦8 or the ♡J.

**CONCLUSIONS**

- Against the auction of INT - 3NT, it is usually right to lead a major suit. This is because the defenders hold an average of 7.18 cards in each major; declarer and the dummy, between them, hold only 5.82 cards.
- Be wary of leading from a four-card suit headed by one or two honours. Prefer to lead from three spot-cards.
- From a holding such as K-Q-7-2, it is usually better to lead the king (or queen) rather than a low card — just as you would against a suit contract.
- Even a doubleton in a major suit may be a better lead than a 4-card or 5-card minor headed by an honour or two.